

**Better Place**

Imagine living free from oil. Picture zero-emission electric vehicles running on a clean energy grid. Today, governments, automakers, energy companies and Better Place work hand-in-hand to make this happen.

Founded in October 2007 on \$200 million of venture capital, Better Place, in its first six months, announced cooperative agreements with Denmark and Israel to transform their transportation infrastructure from oil-based to renewable energy and significantly reduce harmful emissions.

Under the Better Place model, consumers subscribe to transportation as a service, much like they do today with mobile phones. Automakers make the Electric vehicles that plug into the Better Place electric recharge grid of charge spots and battery exchange stations. Energy companies provide the network's power through growing renewable energy projects. Better Place provides the batteries to make owning an electric vehicle affordable and convenient.

With oil out of the picture, transportation is transformed into a sustainable service we can all subscribe to.

How it Works

Electric vehicles need three things in place in for optimum functionality:

1. Charge spots
2. Battery exchange stations
3. Software that automates the experience

The charge spots keep batteries topped off with power so that they always have 100 miles of driving capacity. They are located where you work, live, shop and dine in parking lots so that an electric vehicle has the ability to recharge when the software instructs it to top off.

For trips longer than 100 miles (161 km), battery exchange stations are available roadside. Stations are completely automated, and the driver's subscription takes care of everything. The driver pulls in, and the depleted battery is quickly replaced with a fresh one, without anyone having to leave the vehicle. The process takes less time than it does to fill a tank of liquid fuel.

Because most electric vehicles charge during the evenings while at home, the batteries become distributed storage for clean electricity. Better Place can help markets identify and develop its own "virtual oil fields" of renewable energy. In Denmark, for example, excess energy from the country's wind turbines will be stored in the vehicles' batteries.

Due to the open, standards-based approach that Better Place has adopted in the development of its batteries, there will be many manufacturers contributing to the pool of available batteries. This will help maintain a steady supply and stable prices as more and more nations join Better Place in its efforts to remake transportation as a sustainable service.

Benefits

Switching cars from the pump to the plug will drastically reduce the amount of greenhouse gases that our society produces. If the 700 million cars on the road today were powered by rechargeable batteries, our carbon footprint would be reduced by 10 percent.

We accelerate the widespread market adoption of renewable energy by creating new demand for it. Electric vehicles need an electric recharge grid, and that grid needs to be continually primed with power provided by energy companies. This represents a massive new market for electricity providers, and one that will allow them to begin a systematic paradigm shift to renewable energy sources.

A seemingly potential drawback to renewable energy sources such as wind and solar, is that they are intermittent sources of power and are unable to provide power in the steady and continuous manner of that of a non-renewable facility. In other words, when the sun goes down or the wind fades, they can't contribute power to the grid; and when they are pumping out the kilowatts, they don't always coincide with peak demand and are tremendously expensive and difficult to store.

In response, the Better Place electric recharge grid is an industrial customer that is in constant need of electricity and those off-peak times suddenly find demand. As electric vehicle batteries primarily charge during the evening after a day on the road, excess power can be offloaded to the Better Place grid during evening downtimes and accessed quickly when the peak hours erupt with demand. Because most electric vehicles are fully charged at the start of the day, their use of charging units during the day will make a minimal impact during those problematic peak times. As a result, energy companies have a newly profitable period within the 24-hour day to counterbalance the daily peak.

Because Better Place can address these issues and act as a stabilizing influence on the power market, energy companies will find greater and greater incentive to invest in renewables. Freed from the need to scramble for available power during peak hours, and provided with a new market whose requirements are dependable and manageable, energy companies will sign increasingly more deals to construct solar fields and wind farms, thereby reducing their outlay on polluting materials such as coal and oil.